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Amendments to the Claims:

The listing of clams will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A computer-implemented method for dynamic allocation and management of semaphores for accessing shared resources, the method comprising:

maintaining a data structure indicating for each of a plurality of resources an allocated semaphore;

receiving a request to access a first resource of the plurality of resources from a first task and in response, determining whether or not the first resource is available, said determining whether or not the first resource is available includes checking the data structure for an indication of the first resource; and

in response to said determining whether or not the first resource is available determining that the first resource is available: allocating a first semaphore, updating the data structure with indications of the first resource and the first semaphore, and signaling to the first task that the first resource is available.

Claim 2 (canceled)

Claim 3 (previously presented): The method of claim 1, wherein said maintaining the data structure includes maintaining a current access type for each of the plurality of resources.

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Claim 4 (previously presented): The method of claim 3, wherein said determining that the first resource is available includes finding an indication of the first resource and an associated said current access type of read in the data structure; and recognizing that the request corresponds to a read request.

Claim 5 (previously presented): The method of claim 1, further comprising receiving a second request to access the first resource from a second task; and in response, referencing the data structure to determine that the first resource is currently not available; and in response, signaling to the second task that the first resource is not available.

Claim 6 (previously presented): The method of claim 3, further comprising receiving a second request to access the first resource from a second task, and in response, referencing the data structure to determine that the first resource is currently read-locked of said current access types; recognizing that the second request corresponds to a read access request; and in response to said determination that the first resource is currently read-locked and recognizing that the second request corresponds to a read access request, signaling to the second task that the first resource is available.

Claim 7 (previously presented): The method of claim 3, further comprising receiving a second request to access the first resource from a second task, and in response, referencing the data structure to determine that the first resource is currently read-locked of said current access types; recognizing that the second request corresponds to a write access request; and in response to said determination that the first resource is currently read-locked and recognizing that the second request corresponds to a write access request, signaling to the second task that the first resource is not available.

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Claim 8 (previously presented): The method of claim 3, further comprising receiving a second request to access the first resource from a second task, and in response, referencing the data structure to determine that the first resource is currently write-locked of said current access types, and in response, signaling to the second task that the first resource is not available.

Claim 9 (previously presented): The method of claim 1, further comprising receiving a second request to access the first resource from a second task, the second request including a request timeout value; in response to said receiving the second request, referencing the data structure to determine that the first resource is currently not available, and in response, queuing the second request; and in response to the first task releasing the first resource within a timeframe corresponding to the timeout value, signaling to the second task that the first resource is available.

Claim 10 (previously presented): The method of claim 1, further comprising receiving a second request to access the first resource from a second task, the second request including a request timeout value; in response to said receiving the second request, referencing the data structure to determine that the first resource is currently not available, and in response, queuing the second request; and in response to an expiration of the second request based on the timeout value, signaling to the second task that the first resource is not available.

Claims 11-24 (cancelled)

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Claim 25 (previously presented): An apparatus for dynamic allocation and management of semaphores for accessing shared resources, the apparatus comprising:

means for maintaining a resource lock table data structure indicating for each of a plurality of resources an allocated semaphore of a plurality of semaphores;

means for maintaining a semaphore allocation table data structure indicating the currently used semaphores of a plurality of semaphores;

means for receiving a request to access a first resource of the plurality of resources from a first task;

means for determining that the first resource is available, said means for determining that the first resource is available including means for checking the resource lock table data structure for an indication of the first resource; and

means, responsive to said means for determining that the first resource is available, for: allocating a first semaphore including updating the semaphore allocation table indicating that the first semaphore is in use, updating the resource lock data structure with indications of the first resource and the first semaphore, and signaling to the first task that the first resource is available.

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Claims 26-33 (canceled)

Claim 34 (previously presented): The apparatus of claim 25, including means for freeing the first semaphore.

Claim 35 (previously presented): The apparatus of claim 34, wherein the first semaphore is associated with a timeout value; wherein said means for freeing the first semaphore includes being responsive to a timeout of the first semaphore based on the timeout value.

Claim 36 (currently amended): A computer-implemented method for dynamic allocation and management of semaphores for accessing shared resources, the method comprising:

maintaining a resource lock table data structure indicating for each of a plurality of resources an allocated semaphore of a plurality of semaphores;

maintaining a semaphore allocation table data structure indicating the currently used semaphores for said resources of a plurality of semaphores; and

in response to a received resource active read request for a particular resource from a first task, locating an indication of the particular resource in a particular entry in the resource lock table structure, the particular entry identifying that the particular resource is currently read locked using a first semaphore; and in response: getting a second semaphore from a pool of free semaphores, updating a semaphore entry in the semaphore allocation table to reflect that the particular resource is associated with the second semaphore in addition to the first semaphore, updating the particular entry in the resource lock table structure to reflect an additional read lock associated with the particular resource, and signaling to the first task that the particular resource is available.

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Claim 37 (currently amended): A computer-implemented method for dynamic allocation and management of semaphores for accessing shared resources, the method comprising:

maintaining a resource lock table data structure indicating for each of a plurality of resources an allocated semaphore of a plurality of semaphores;

maintaining a semaphore allocation table data structure indicating the currently used semaphores for said resources of a plurality of semaphores; and

in response to a received resource request for a particular resource from a first task, locating an indication of the particular resource in a particular entry in the resource lock table structure, the particular entry identifying that the particular resource is currently associated with a first semaphore; and in response: getting a second semaphore from a pool of free semaphores, updating a semaphore entry in the semaphore allocation table to reflect that the particular resource is associated with the second semaphore in addition to the first semaphore, and signaling to the first task the availability of the particular resource.

Claim 38 (currently amended): The method of claim 37, wherein the received resource ~~requests~~ request is for read access to the particular resource; and the method further comprises updating the particular entry in the resource lock table structure to reflect an additional read lock associated with the particular resource.

Claim 39 (previously presented): The method of claim 37, where the second semaphore is associated with a timeout value; and wherein said signaling includes signaling to the first task that the particular resource is available before the end of a timeout period corresponding to the timeout value.

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Claim 40 (previously presented): The method of claim 37, where the second semaphore is associated with a timeout value; and wherein the method further comprises: in response to the end of a timeout period corresponding to the timeout value: returning the second semaphore to the pool of free semaphores, updating the semaphore entry in the semaphore allocation table to reflect that the particular resource is no longer associated with the second semaphore, and signaling to the first task that the particular resource is not available.

Claim 41 (previously presented): The method of claim 40, where the received resource requests is for read access to the particular resource; and the method further comprises: updating the particular entry in the resource lock table structure to reflect an additional read lock associated with the particular resource; and in response to the end of a timeout period corresponding to the timeout value, updating the particular entry in the resource lock table structure to reflect one less read lock associated with the particular resource.

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